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Notice of Allowability

Application No.

10/759,363

Examiner

Hoa C. Nguyen

Applicant(s)

BENSON, BRAD

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 7/17/06.
2. ☒ The allowed claim(s) is/are 1-4 and 20-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>1 page</u> |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. The request filed on 9/5/06 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 10/759363 is acceptable and a RCE has been established. An Action on the RCE follows.
2. The amendment filed on 7/17/06 has been entered. Applicant has amended claim 1. Claims 20-24 are newly added.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney, David R. Risley, on 9/15/06 and 10/16/06.

The application has been amended as follows:

(a) Claim 1: The "a substrate having a first surface on a first side of said substrate, a second surface on a second side of said substrate opposite said first side, and a peripheral edge, said peripheral edge of said substrate forming at least one notch that defines an open space;

an electrical conductor bonded to said first surface of said substrate;

a first cover layer bonded to said first surface of said substrate and to said electrical conductor, said first cover layer extending beyond said peripheral edge of said substrate at said at least one notch so as to extend into said open space; and

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a second cover layer bonded to said second surface of said substrate, said second cover layer also extending beyond said peripheral edge of said substrate at said at least one notch so as to extend into said open space, said second cover layer being bonded to said first cover layer at said open space such that said first and second cover layers form an encapsulation region that at least partially encapsulates said substrate."

is changed to --

"an insulative substrate having a first surface on a first side of said insulative substrate, a second surface on a second side of said insulative substrate opposite said first side, and a peripheral edge, said peripheral edge of said insulative substrate forming at least one notch that defines an open space;

an electrical conductor line bonded to said first surface of said insulative substrate;

a first cover layer bonded to said first surface of said insulative substrate and to said electrical conductor line, said first cover layer extending beyond said peripheral edge of said insulative substrate at said at least one notch so as to extend into said open space; and

a second cover layer bonded to said second surface of said insulative substrate, said second cover layer also extending beyond said peripheral edge of said insulative substrate at said at least one notch so as to extend into said open space, said second cover layer being bonded to said first cover layer at said open space such that said first and second cover layers form an encapsulation region that partially encapsulates said insulative substrate."

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- (b) Claim 2: The term "said substrate" is changed to -- said insulative substrate.
- (c) Claim 3: The term "electrical conductor" is changed to -- electrical conductor line.
- (d) Claim 20: The term "said substrate" is changed to -- said insulative substrate.
- (e) Claim 22: The term "said substrate" is changed to -- said insulative substrate.

Response to Arguments

4. Applicant's arguments, filed on 7/17/06, with respect to claims 1-4 have been fully considered and are persuasive with the above amendments. The rejection of claims 1-4 has been withdrawn.

Allowable Subject Matter

5. Claims 1-4 and 20-24 are allowed.

Reasons for allowance

6. The following is an examiner's statement of reasons for allowance: The examiner agrees with the applicant's remarks with the above amendments that the prior references art fail to disclose, teach, or fairly suggest that an insulative substrate having electrical conductor line formed thereon, and a peripheral edge forming at least one notch that defines an open space, first and second cover layers that extend beyond the peripheral edge at the notch so as to extend into the open space, and the second cover layer being bonded to the first cover layer at the open space to form an encapsulation region that partially encapsulates the substrate as claimed by the applicant. None of the best prior references art of record including Schmidt et al. (US 5729897), Ames et al. (US 6617518), and Abbott et al. (US 6194777) taken alone discloses or teaches

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such bonding structure as a whole. And, it is unreasonable to combine any of these references art, because any combination of the references art will produce a nonfunctioning structure combined with the base reference.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa C. Nguyen whose telephone number is 571-272-8293. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reichard Dean can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

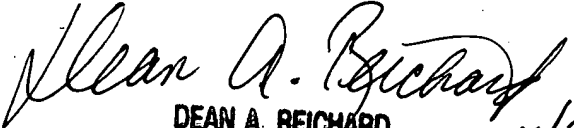
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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hoa C. Nguyen
9/15/06


DEAN A. REICHARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800
10/30/06